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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,724	09/19/2003	Andrew Dennis Barton	1-24742	4646

46582 7590 08/04/2005

MACMILLAN, SOBANSKI & TODD, LLC  
ONE MARITIME PLAZA - FOURTH FLOOR  
720 WATER STREET  
TOLEDO, OH 43604

EXAMINER

WINNER, TONY H

ART UNIT	PAPER NUMBER
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3611

DATE MAILED: 08/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Supplemental  
Notice of Allowability**

Application No.

10/665,724

Examiner

Tony H. Winner

Applicant(s)

BARTON ET AL.

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to a telephone conversation 7/11/05.
2. ☒ The allowed claim(s) is/are 1-9 and 11-43.
3. ☒ The drawings filed on 12 September 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets" ) must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948 ) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |                                                                                                                     |                                                                                       |
|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)                                                    | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)           |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                   |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance             |
|                                                                                                                     | 9. <input type="checkbox"/> Other _____                                               |

***Election***

a. Applicants elect species II without traverse is acknowledged. Claims 1, 9, 11-12, 15-18 and 20-43 were said to be readable on the elected species, corresponding to figure 4. Claims 2-8, 13-14, and 19 are withdrawn from consideration. Claim 10 is cancelled.

**Examiner's Amendment**

b. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. John B. Molnar on 6/17/05 and 7/11/05.

The application has been amended as follows:

1. Claim 1 line 2 the words "the self-centering" have been replace with – a self-centering –,
2. Claim 1 line 3 inserting the letter – a – in front of the words "split mu",
3. Claim 1 line 11 inserting the word – target – in front of the words "self-centering",
4. Claim 2 line 3 replaces the words "a corrective" with – said corrective –,
5. Claim 3 line 5 replaces the words "the track" with – a track –,
6. Claim 5 line 3 replaces the words "a corrective" with – said corrective –,

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7. Claim 6 line 2 replaces the words "that invert" with – inverting –,
8. Claim 7 line 3 replaces the words "a corrective" with – said corrective –,
9. Claim 9 line 2 replaces the words "claim 15" with – claim 1 --,
10. Claim 11 line 2 replaces the words "claim 10" with – claim 9 --,
11. Claim 13 line 2 replaces the words "with an" with – as said --,
12. Claim 14 line 3 replaces the words "the actual" with – an actual --,
13. Claim 15 line 2 replaces the words "a corrective" with – said corrective --,
14. Claim 15 line 4 inserting the letter – a – in front of the word "vehicle" and "steer angle",
15. Claim 16 line 2 replaces the words "the actual " with – an actual --,
16. Claim 18 line 2 replaces the words "the estimated" with – said estimated --,
17. Claim 19 line 2 replaces the words "the braking" with – said braking --,
18. Claim 19 line 5 replaces the words "the actual " with – an actual --,
19. Claim 20 line 2 replaces the words "claim 15" with – claim 1 --,
20. Claim 21 line 3 inserting the word – an – in front of the word "operational",
21. Claim 22 line 3 inserting the word – an – in front of the word "operational",
22. Claim 28 line 2 replaces the words "claim 15" with – claim 1 --,
23. Claim 29 line 2 inserting the word – an – in front of the word "operational",
24. Claim 30 line 2 inserting the word – an – in front of the word "operational",
25. Claim 31 line 3 inserting the letter – a – in front of the word "yaw",
26. Claim 32 line 2 inserting the word – an – in front of the word "operational",
27. Claim 35 line 2 replaces the words "claim 15" with – claim 1 --,

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28. Claim 35 line 6 inserting the letter – a – in front of the word “yaw”,
29. Claim 36 line 2 replaces the words “claim 15” with – claim 1 --,
30. Claim 36 line 2 inserting the word – an – in front of the word “ABS”,
31. Claim 36 line 2 replaces the words “the apply” with – an apply --,
32. Claim 36 line 5 inserting the word – an – in front of the word “actual yaw”,
33. Claim 36 line 5 inserting the letter – a – in front of the word “yaw acceleration”,
34. Claim 37 line 1 replaces the words “claim 15” with – claim 1 --,
35. Claim 40 line 3 inserting the letter – a – in front of the word “demand”,
36. Claim 41 line 3 replaces the words “the initial” with – an initial --,
37. Claim 41 line 3 replaces the words “to the” with – to be as an --,
38. Claim 42 line 2 replaces the words “the high” with – a high --,
39. Page 1 line 5 of the specification, the word “manoeuvres” has been replaced with – maneuvers --,
40. Page 6 line 9 of the specification, the word “tyre” has been replaced with – tire --,
41. Replaces the abstract with a new abstract (see attachment A).

### ***Reasons for Allowance***

- c. The following is an examiner's statement of reasons for allowance:

Claims 1, 9, 11-12, 15-18 and 20-43 are allowed because the prior art neither shows nor teaches a vehicle stability compensation system wherein during the split mu braking

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operation the system takes at least one operational variable representative of the target self-centering position and subtracts therefrom an actual vehicle steering angle to derive a target self-centering error and that a gain means for establishing a torque demand proportional to said self-centering error, the torque demand being added to an assistance torque generated by the electrically assisted steering system to shift the self-centering position so as to encourage the vehicle driver to move the steering wheel such as to reduce the target self-centering error to zero for maintaining the vehicle stable and controllable.

d. Non-elected dependent claims 2-8, 13-14, and 19 are now rejoined because these claims depend on generic allowed claims and therefore, are in condition for allowance.

e. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

f. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony H. Winner whose telephone number is (571) 272-6654.

g. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley Morris, can be reached at (571) 272-6651. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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h. Information regarding the status of an application may be obtained from the Patent Application Information-Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-6584.



**TONY WINNER**  
**PATENT EXAMINER**

July 25, 2005

### New Abstract (Attachment A)

A vehicle stability compensation system, which is arranged to adjust dynamically the self-centering position and the steering feel of the vehicle steering system during split mu braking operation. The adjustment being based on at least one operational variable representing a corrective steer angle for the vehicle and hence representing a target self-centering position. A target self-centering error is derived from the difference between the target self-centering position and an actual vehicle steering angle. A torque demand that is proportional to the target self-centering error is then added to an assistance torque generated by the electrically assisted steering system to shift the self-centering position so as to encourage the vehicle driver to move the steering wheel such as to reduce the target self-centering error to zero for maintaining the vehicle stable and controllable.